

CANADA'S COMPUTER INFORMATION SOURCE

# THE COMPUTER PAPER

NEWS REVIEWS FEATURES

**EASY  
TO  
USE  
PCs**

**HANDS-ON  
TESTS OF:**

Compaq Presario  
Dell OptiPlex 486  
Macintosh LC575

**REVIEWS:**

PC Game Controllers  
A-Max IV for Amiga  
IBM Shuttle for Mac



**FREE**

**INSIDE:**

## A GUIDE TO ERGONOMICS for COMPUTER USERS

Health & Safety Guidelines

## HOW TO ACCESS THE INTERNET FOR FREE

A Guide to  
FreeNet's across Canada

**Using OS/2**



# HAPPY NEW DECADE

Canada's 1st DX notebook distributor  
celebrates 10 years of growth by continuing to  
provide hi-performance notebook  
& desktop systems.

## Notebook Deal of the Month



486SX/25 PVT: \$2146 (street) system  
486DX/33 PVT: \$2401 (street) system  
5244 (street) system  
486DX/3-66 PVT: \$2832 (street) system  
\$2746 (street) system

### Choice of Intel or AMD CPU

Lowest bid from \$2,329 street

UPV: yes, 486/33 & 486/34

Provision non-elimination

Very good 14" monochrome display

Build in Certified

4 unit IBM type, in 20 unit with detachable LTR L&L

Two Year Full Year Type II PCMCIA and

Four Local Bus Video Graphics & Hard Drive Access

Canada's best notebook value & Service (Approved for PVT)

## ULTI<sup>®</sup>TET

### 1984-1994 10 YEARS OF SALES SERVICE & SUPPORT

Free software with every system:  
wordprocessor, database, spreadsheet, games

24 hour fax on demand  
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Two year parts & labour warranty  
on desktop systems

Five year parts & labour warranty  
on VESA motherboard with minitower systems

**EASY LEASE TO OWN PAYMENT PLANS  
ALWAYS AVAILABLE**

Ultimet will be moving to our new 13000 sq ft  
manufacturing and sales facility.  
to serve you better.

## Minitower Deal of the Month



**EASY  
LEASE  
TO OWN  
and more**

**TOP PC  
components  
and more**

486DX/33: \$1484 (street) system  
\$1536 (street) system  
486DX/3-66: \$1694 (street) system  
\$1767 (street) system

Desktop Intel or AMD CPU with 25MB cache  
4 MB FAST BROWSE BOARD 10 MB RAM  
Bios: AWARD/PC BIOS LSI chip, 3 unit video (32 or VGA) no  
cable/cable after system 12 MB DR bus 8 MB cache 1000 MB  
1.44 MB Japanese hard disk/250  
14" 20 pin monochrome monitor 1000/100  
200 MB 12 MB fast field with 250 MB fast cache  
Ultimet motherboard with certified Intel 486 CPU 33 MHz  
Pentium P550 processor, 4 VESA LSI cache, 12 MB cache, multi-  
CPU clock generator for 25 - 66 MHz CPUs  
Enhanced digital motherboard and 486 five enhanced keyboard  
Ultimet's unique open - unit 486 Pentium and 486 cache for 486

ULTIMET PVT NOTEBOOKS									
Model (4 unit Price)	486SX/25 486SX/33	486SX/34 486SX/35	486SX/36 486SX/37	486SX/38 486SX/39	486SX/40 486SX/41	486SX/42 486SX/43	486SX/44 486SX/45	486SX/46 486SX/47	486SX/48 486SX/49
486SX/25	\$2146	\$2146	\$2146	\$2146	\$2146	\$2146	\$2146	\$2146	\$2146
486SX/33	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/34	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/35	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/36	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/37	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/38	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/39	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/40	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/41	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/42	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/43	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/44	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/45	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/46	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/47	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/48	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401
486SX/49	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401	\$2401

ULTIMET MINITOWER COMPUTERS									
Model	486SX/25	486SX/33	486SX/34	486SX/35	486SX/36	486SX/37	486SX/38	486SX/39	486SX/40
486SX/25	\$1484	\$1484	\$1484	\$1484	\$1484	\$1484	\$1484	\$1484	\$1484
486SX/33	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/34	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/35	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/36	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/37	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/38	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/39	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/40	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536

## WHY SHOP ULTIMET

**EXPERIENCE**  
Canada's first DX minitower supplier also has the most  
experience in desktop/notebook computers. Our installed  
base currently exceeds 10,000 systems.

**LOCAL ASSEMBLY & SERVICE**  
All components and services in stock in Ultimet's own facilities or at  
our Toronto facilities, maintaining lowest cost. For  
expanding users in larger facilities will allow us to serve you  
more more efficiently.

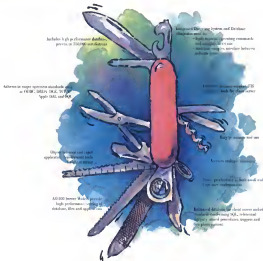
**UPON-RECALL**  
Ultimet's products are designed for today's budget and tomorrow's  
software changes. For desktop/notebook systems are  
upgradable. In fact 486/330 Pentium motherboard, 486  
PVT Notebooks are upgradable to 486DX/40.

**EASY LEASE TO OWN**  
Getting off on your own is made of \$100,000 for a 2 year  
period. Application of a down payment, credit  
approval, interest, and down payment monthly payment program.  
A 1% down after 30 months, payments thereafter the  
amounting to you.

**LEASING EXAMPLE**

System Price = \$2000  
Leasing Period = 24 months  
Monthly Payment = \$83.33  
Total Payment = \$2000

ULTIMET MINITOWER COMPUTER UPGRADES									
Model	486SX/25	486SX/33	486SX/34	486SX/35	486SX/36	486SX/37	486SX/38	486SX/39	486SX/40
486SX/25	\$1484	\$1484	\$1484	\$1484	\$1484	\$1484	\$1484	\$1484	\$1484
486SX/33	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/34	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/35	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/36	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/37	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/38	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/39	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536
486SX/40	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536	\$1536



## You don't know how flexible it is until you open it up.

Consider the Swiss-Army grace of engineering pioneered above. It's cross-platform flexible. It spans its marketplace. Fully integrated. And it works! How else could it earn the description "universal tool?"

In fact, it's more a computer, it might well remind you of the IBM AS/400 System. With fully integrated operating systems, relational databases, security and system management facilities we're definitely open for comparison.

Does it call the AS/400 a universal tool for business? Absolutely. Over 20,000 applications are ready to run. It's also the leader when it comes to price and performance. In an independent study, International Data Corporation concluded that the AS/400 delivers the lowest cost of ownership among comparable computers and LANs. *Forbes* magazine has awarded the AS/400 Product of the Year five years in a row.

Our customers are equally effusive in their praise of the AS/400's client server capabilities. In one pursuit of client server solutions, they say it's fast, handles the job, and really does work happily with Apple PCs, Mac and HP Workstations, PC LANs and mainframes. Of course, the average we measure over is the 6,000 customers a month, worldwide, who



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### June

#### Portable Computers

Classifieds: Mon., May 2  
Ad deadline: Wed., May 4  
Carriers Ready Distribution: Thu., May 5  
Fri., May 20

### June

#### Macintosh

Classifieds: Mon., May 16  
Ad deadline: Wed., June 1  
Carriers Ready Distribution: Thu., June 2  
Fri., June 17

### August

#### CD-ROMs, OS, Optical Drives

Classifieds: Fri., June 24  
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Monday-Friday 9:00am-5:00pm Sat 10:00am-12:00pm



## Basic Configuration

• 486DX-25 up to 33 Mhz  
• 10MB Cache  
• 100-200 Hard Drive  
• 6.4 MB floppy drive  
• 7200, 10000, 16000  
• 85, 100, 120, 140, 160, 180, 200, 220, 240, 260, 280, 300, 320, 330, 350, 360, 380, 400, 420, 440, 460, 480, 500, 520, 540, 560, 580, 600, 620, 640, 660, 680, 700, 720, 740, 760, 780, 800, 820, 840, 860, 880, 900, 920, 940, 960, 980, 1000, 1020, 1040, 1060, 1080, 1100, 1120, 1140, 1160, 1180, 1200, 1220, 1240, 1260, 1280, 1300, 1320, 1340, 1360, 1380, 1400, 1420, 1440, 1460, 1480, 1500, 1520, 1540, 1560, 1580, 1600, 1620, 1640, 1660, 1680, 1700, 1720, 1740, 1760, 1780, 1800, 1820, 1840, 1860, 1880, 1900, 1920, 1940, 1960, 1980, 2000, 2020, 2040, 2060, 2080, 2100, 2120, 2140, 2160, 2180, 2200, 2220, 2240, 2260, 2280, 2300, 2320, 2340, 2360, 2380, 2400, 2420, 2440, 2460, 2480, 2500, 2520, 2540, 2560, 2580, 2600, 2620, 2640, 2660, 2680, 2700, 2720, 2740, 2760, 2780, 2800, 2820, 2840, 2860, 2880, 2900, 2920, 2940, 2960, 2980, 3000, 3020, 3040, 3060, 3080, 3100, 3120, 3140, 3160, 3180, 3200, 3220, 3240, 3260, 3280, 3300, 3320, 3340, 3360, 3380, 3400, 3420, 3440, 3460, 3480, 3500, 3520, 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Food	7.00	7.00
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## BROADCASTERS

# Broadcasters Taste Digital Samples

BY PETER MCLENNAN

LAS VEGAS, NV — With a million eyes that do double work, thousands of millions of dollars worth of shiny new hardware and the latest software offered by nearly 1,000 manufacturers and distributors, more than 11,000 video dealers flocked over the weekend to see and sample the new video, film and multimedia production equipment. This is the National Association of Broadcast Convention, NAB, held in this desert city March 20-23.

In the past, the convention was dominated by names like RCA and AMEC. Grants and General Electric, and more recently by names like Sony and Panasonic. Technics and JVC. More, however, were names not beginning to appear in the banner that hung over the convention floor. Computer companies have invaded the world of film and television production, and now the name and design ideas and their digital a little way off, creating and distributing the images we see on home, at work, and even —

sometimes display at the theatre.

The Vegas fair was well attended by the video theatre people. They attended the Technics show, a 16,000 square exhibitor space for the "Theater." Now this claims 32 performance, which was said to be well as well as a 160,000 video tape machine. It demonstrated drag and drop video editing software that was extremely easy to use, although it appeared lacking in some of the control features important to serious editing.

**Computer companies have invaded the world of film and television production.**



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## ALPHA COMPUTER CONNECTION

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*Before the advent of computers, office workers had to perform a range of movements to get their work done. Even typing a letter required a number of varied motions: inserting the paper, typing, inserting the carriage return, removing the paper, shuffling the envelope, locating files, and filing a copy of the letter. Today a typical letter involves just sitting down at a computer and entering keystrokes. Most of the other activities have been eliminated. While this can make office workers more efficient, the lack of varied movement may contribute to physical discomfort and mental stress.*

Ergonomics is a science that studies people's physical and mental capacities and limitations, including areas of mobility and work-related stress. The parameters of ergonomics include promoting physical comfort, productivity and efficiency, reducing risk of physical injury, stress, and fatigue, and increasing satisfaction with the work and workplace. To achieve these goals, ergonomists design or adapt jobs, work spaces, tools, and equipment.

This article is excerpted from a manual by Ergo Tech Incorporated, entitled *An Ergonomics Checklist for Computer Users*. It focuses on ergonomics issues common to computer users. It offers guidelines on how

to adjust your furniture, computer equipment, work area, and posture to work less and think, and also encourages change and movement into your daily routine.

There can all make a difference in how you feel at the end of the work day. The problems are not hard and fast rules; you may need to adapt them to fit your needs and your situation. The more time of the work day you spend on the computer, the more likely you are to become familiar with the ideas presented.

Keep in mind that changes may feel uncomfortable at first. It may take a week or two before they feel natural.

## Your Chair

Your chair is the most used piece of equipment in your office. How comfortable it feels depends on its design and how well it is adjusted to adapt to fit your size and shape.

Adjusting your chair can increase your overall mobility, reduce your general soreness, improve leg circulation, reduce stress on your back, and help maintain better posture.

### Seat Height

Are your feet either flat on the floor or supported by a foot rest?

If not, lower your chair so it is adjustable. If it cannot be lowered, you may need to use your feet for support. If this requires your constant, you may need to talk with your supervisor about obtaining a foot rest.

Is the angle between your thigh and lower leg 90° or slightly more?

If not, raise your chair seat to get a distance which will enhance blood circulation to your legs.

Do you have space between the back of your knees and the front edge of your chair?

If not, try lowering your chair, raising the lower back or the lumbar area. Lumbar support can be available through office supply, orthopedic catalogs and supply stores. They

## Continued

# An Ergonomics Guide For Computer Users

BY NANCY LABON, MS, DAN HALLBERG, MS, MPH,

ERIC BENNETT, MS, WAYNE ADAMS, BME,

CHRISTINE MEIER, PhD

comes in a wide variety of styles and a wide range of prices.

If these suggestions do not give you adequate foot support and space behind your knees, you might need a shalower chair.

### Quick Fix Ideas

Temporary fixations can be old phone books or a foot rest.

### Backrest Position

Lean your head up and down the back of your chair. The area with the greatest forward curve is the lumbar support area.

Does your backrest physically match the lumbar (lower back) area of your back?

If not, adjust the backrest up to down if it is adjustable. If not, try one of the Quick Fix ideas below, or see if a lumbar support can be purchased.

### Does the back of your chair support your back?

If not, Adjust the forward tension until it gives you good back support. If your chair does not have this adjustment, a lumbar support may help maintain back posture.

If your chair has other adjustments (seat tilt, foot rest, lumbar pressure, etc.), experiment to find the most comfortable settings. Different tasks often require different settings.

Change your posture frequently. Allow chair adjustments during the day can also reduce some muscle stress and stiffness.

### Quick Fix Ideas

Temporary lumbar supports include rolled up bubble wrap from packaging, a small pillow or cushion on a rolled up towel.

**\*Remember:** Adjust your chair height to correct stability loss and leg support, and improve leg circulation to better comfort. Adjust your backrest and change your posture to achieve better comfort.

## Your Keyboard

The height of your keyboard affects your posture. You will be more comfortably with

your keyboard at about seated elbow height. As this height, your wrists tend to be straighter and your shoulders more relaxed. This posture may also reduce the risk of wrist problems and neck or shoulder pain.

### Is your keyboard at about seated elbow height?

If your keyboard is too high,

Raise your chair seat. (Get a foot rest if this lifts you too off the floor.) Lower your keyboard.

Some ways to do this are:

- Move the keyboard to a typing surface.
- Put the keyboard on your custom chair.
- Put your arm flat to custom your hand from the edge of the desktop, and the screen on your rest.

- See if it is possible to attach an adjustable keyboard holder, a device which adjusts the height of your keyboard. Various models and prices are available through office and computer supply stores.

- Replace your custom chair with a side chair and place your keyboard on it.

- Request an "adjustable one," a keyboard holder which adjusts back height and angle. If this holder makes the work surface offset too to use.

- Talk with your supervisor about providing your office a special computer table.

- Find other ideas by looking around to see where you would keep their keyboard.

If your keyboard is too low, put what thing underneath it to raise your chair.

## Your Mouse

If you use a mouse, it should be positioned so close to your keyboard as possible and at a matching height. A perfect solution is to use a keyboard holder wide enough to place the mouse adjacent to the keyboard.

**\*Remember:** Position your keyboard at elbow height is key with straight wrists relaxed shoulders and greater comfort.



## Your Monitor

By carefully raising your head up, down, or to the side, so that the monitor can remain vertical to each state and maintain back discomfort, and other other than selected position.

- It is the height of your computer monitor at eye level when you are not sitting. This might mean to sit a co-worker to help you check that.

- If your monitor is too low, low it one of the following computer aids can be utilized for you.

- A height-adjustable monitor holder.
- A computer support arm which allows you to raise the monitor and adjust it best vertically.

When it is a monitor positioned too high, however, if you sit, you can usually remove some or all of the computer equipment such as the keyboard, CPU, and the processing unit, or other monitor holder.

A few cautions about moving your monitor:

- Ask someone to help you if the monitor is heavy or difficult to move.
- Before you start whatever you use to support the monitor is sturdy and stable.
- Never place your monitor where any of the ventilation openings are obstructed. This can damage it.

- **Remember:** Place your monitor at about eye level to reduce neck strain and improve overall posture.

### Quick Fix Ideas

- Increase your monitor platform can be:
- An old phone book, or a few legal paper.
- Computer peripherals need together.
- A wooden shelf.
- Use your imagination. Just make sure the platform is stable.

## Copy Holders & Wrist Rests

These work aids can make your job easier because how you hold at the end of the work day and possibly make you more efficient.

### Copy Holders

Are your documents located at eye level and near the monitor?

If not, use a copy holder. You will find that this device can help prevent neck strain from looking up and down between your monitor and documents. It can also reduce eye fatigue from excessive visual refocusing at different distances. Place the copy holder at the same distance from your eyes as the monitor, and twist close to it.

The best location for it depends on what type of computer work you do. Such as data entry, data entry level, word processing, etc. You will find more information about this in our section "Arrange Your Computer Equipment."

- **Remember:** Position your copy holder at eye level and near the monitor to maintain neck and eye strain.

### Wrist Rests

Do your wrists bend downward when you type?

Does your wrist rest up a hand or flap too backward as a clock or the opposite?

If so, you are possibly working in a posture that strains your hands and wrists and may leave little room for the tendons and nerves. Over time this can contribute to nerve disorders.

A wrist rest can help. Wrist rests are sold by office and computer supply stores. You can also fabricate one temporarily by taping the Quick Fix Ideas. The wrist rest should be cushioned with the hand edge slightly curved. It should be at least as high as the base of your keyboard, but not higher than the "home" row of keys.

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into a separate technical addendum into a live hardware feature that have changed since the manual was printed. This could potentially cause some confusion.

**Health and safety info** \*\*\*\*\* Included on the first page of the manual — where it should be.

**Technical index** \*\*\*\*\* All upgrade options are explained in detail. Even the jobs most users would consider leaving to their dealer, such as replacing the CPU, are fully illustrated.

**Overall clarity** \*\*\*\*\* As the latest and

most complete with the addendum, we have no complaints.

Other notes: some configuration options require special tools (or, in one case, four). Disk software cards are supplied.

**Technical support** \*\*\*\*\* Dell's support network went the best of those we tested.

**Tech support** is available 24/7, seven a day — by toll-free phone or by e-mail. Live chat service is available by some users. For critical systems, a special network system hotline is available at additional cost that features certified Windows engineers standing

by. Or, as usual, a day. The service charges only for problems solved, not by the hour.

**Warranty** \*\*\*\*\* 1 year standard. Additional coverage available at extra cost. Dell provides training.

#### Dell Tutorial

The standard Windows manual (available on all PCs) covering fundamental features by selecting "Windows Tutorial" from the Help menu) is the only disk-based tutorial supplied with the Dell PC. But it is a adequate for most users. The company also provides a

dedicated "Diagnosing and Troubleshooting Guide" by book form.

**Running up the ante** \*\*\*\*\* The second time the computer is turned on, it presents a list of options, one of which allows you to install a supplied backup program. A floppy manual details the backup procedure.

**Hardware installation** \*\*\*\*\* Two Quick Reference Cards describe the basics ("Buy what I say means more"), and a 16-page manual provides additional details.

#### Software

The company provides all software solutions bundled with its PCs. Dell says it will do this for any of the products from its 50-page catalog of software and hardware options. We ordered Microsoft Office (full personal, spreadsheet and presentation package) with our test unit, and were ready to run it soon as we unpacked the machine.

All manuals and original floppy disks are supplied to Dell's 4.2 Windows 3.1, and are third-party applications included.

A 40-page Dell-branded catalog shows many third-party software and hardware options available from Dell.

#### Hardware setup and configuration

Adding an expansion card \*\*\*\*\* Supports a total of three full-length slots (or 1 full-length card designed for standard PC expansion bus, a VGA/monitor card adapter is optional). If the optional VL-Bus slot card is installed, one VL-Bus and a turbo card can be added to 128 MB RAM. But access to ISA expansion, VGA and LAN is compromised.

The onboard VGA graphics adapter lacks "feature connector" supplied by some third-party video hardware (Sigma Design's Del Magic, etc.). Multiple cards require manual configuration (e.g., monitor or other options on cards may need to be set). The option a custom monitor easily and provides ready access to the expansion slot area.

**Installing RAM** \*\*\*\*\* The process for adding RAM is simply explained in the manual. The system can be expanded in a maximum of 64 megabytes in RAM using standard SDRAM (single in-line memory modules). Data are clearly visible by removing the cover. Configuration is automatic, and RAM may be tested using the supplied diagnostic software.

**Using a modem** \*\*\*\*\* (The serial port)\*\*\*\*\* AT standard 9-pin "D" connector). The Quick Reference card supplied with the unit specifically advises common modem problems. Dell can supply and preinstall one or two direct modems.

**Using a printer** \*\*\*\*\* (standard parallel port)\*\*\*\*\* (The unit will handle the HP Enhanced parallel port based on some PCs). The Quick Reference card supplied with the unit specifically advises common printing problems. Dell can supply and pre-configure one or two direct modems.

**Using sound** \*\*\*\*\* (Dell's coming disk)\*\*\*\*\* Not mention many sound boards. The popular Soundblaster board type is available through Dell with other third-party hardware products, network cards, etc.; it may be pre-installed at the Dell factory.

**Adding another hard drive** \*\*\*\*\* All hard drive options supplied by Dell are physically formatted before they are shipped. A full-length bay is available. The manual clearly describes the installation procedure for both IDE and SCSI drives and includes an on-line SCSI operating sys-

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Continued on page 42



# Works For Windows 3.0

## For a Lighter Office Load

BY GOLF WHEELBRIGHT

I must confess a bias from the start of this review. I have long been a user of Information Works and have been a fan since the first version of the product came out for the Apple Macintosh more than eight years ago.

In recent years, however, I have to admit to having fallen out of the habit of using Information Works - in either its Mac, DOS or Windows versions - and instead switching to better-suited rivals for Windows and Mac OS: Word and Excel, just to list a few more by name.



Despite all this loathing, however, I always found myself slightly envious of the amount of text disk space I had to give up in order to run them - especially on workaholic computers, where space is often at a premium. (I'll confess: I still running Word and Excel on my desktop machine and Works for Windows 3.0 on my notebook. I always found myself frustrated by the fact that Excel spreadsheets would not be read on their native format and that Word suffered an equally severe decline in editing when Works.

It was in this frame of mind that I approached Quarterdeck: Works for Windows did almost two months ago. By this time, I was using Microsoft Office Professional on my desktop system, but was really unhappy about the size of writing with 42 Mb for a full installation of the same load of package on my portable.

Imagine my joy when I loaded up Works for Windows 3.0 and found that it would quite happily read and write files in both Word for Windows 4.0 and Excel 5.0 formats (which, at the time, was quite a first given that Excel 5.0 was still beta software). This meant that I could stay with my old Works, but get around applications on my desktop system, too have a smoother and yet fully functional version of the package on my notebook's machine.

The result is an arrangement I am really happy with. And I get happier the more I work with Works, because Quarterdeck has really tried to reduce how people use integrated applications with the release of this product.

To run with this company has recently added a communications module into the Windows version of the product. This has always been a part of the DOS and Macintosh versions, but was left out of previous Windows versions on the assumption that most users were happy to work with Microsoft Terminal Emulator.

The communications module within

Works is much easier to use than Windows Terminal, and actually includes a feature to help you quickly make connections and log on. It also includes the all-important 2800 BDM file transfer protocol in addition to

Windows Terminal.

I was also delighted to find a whole range of new Works for Windows 3.0 that simplify many of the tasks which were tough in previous versions. If, for example,

you need to find a file but are not sure of its name, a file finding Wizard will help you to quickly search your whole hard disk for the

Continued on page 36



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# Amiga to the Max

*ReadySoft's A-Max IV —*

*a color Macintosh emulator for the Amiga*

BY GRAEME BENNETT



**Product:** A-Max IV (CD)  
**Price:** ReadySoft Inc. \$69.95 + \$7.50  
**Summary:** A-Max IV is the latest version of a Macintosh emulator for the Amiga from ReadySoft Corporation.  
**Price:** CD-ROM \$69.95 (A-Max IV currently only ships upgrade \$59.95) + \$7.50 U.S. & Canada

access to enhanced color modes using either an Amiga video card or an AGA equipped Amiga, such as the Amiga 4000 large screen workstation, and smooth scrolling visual memory larger than the emulator's physical display.

## Requirements:

A-Max IV requires a 68030 or greater processor and the 386, but first its installation on — the Macintosh operating system, you must have the native video system in level or 68030 version 3.1 of the AmigaDOS operating system and version 7.0 or greater of the local operating system. Although under A-Max, versions supported System 4.0, the new release requires at least System 7.

For Amiga users, one feature with the AmigaDOS 3.3 upgrade, the primary differences between 2.04 and 3.1 are the built-in file requests and a few copy of AmigaDOS 4.0 files can be used during its installation.

## Manual:

When it comes to User and Computer, have several complaints that the A-Max manual lacks troubleshooting information but more A-Max users report that the manual looks good, and is quite straightforward. A table of contents and detailed index are included.

Although it lacks a troubleshooting section, some users report that the product installs with a minimum of hassle. The manual reflects the assumption that things will go smoothly. Nevertheless, as with all hardware products, you should use the manual from the box before you plug it in. "Well, the one is a lot better — it's not even to understand — that's not of them."

As the manual says, "before you use the A-Max is not the purpose of the A-Max does, therefore, once A-Max is up and running, a book called the Macintosh Bible will get you even more started in the Mac world."

## Installing A-Max

A-Max is definitely not as easy to set up as a real Macintosh. If you are buying A-Max from a dealer, we recommend that you have

## Introduction:

A-Max IV is a hardware and software system that allows you to use Macintosh software on CD-ROM on any Amiga model equipped with a 68030+ 68030, or 68040 processor and an expansion slot for the addition of the A-Max hardware card.

A-Max IV makes use of all of the Amiga's resources including RAM, hard and floppy drives, serial and parallel ports, mouse and keyboard, during Macintosh installation. However, unlike previous versions of A-Max, A-Max IV does not shut down the normal AmigaDOS operating system. Therefore, it is now possible to maintain Amiga programs with a Mac IV.

Once A-Max IV runs original, unaltered Macintosh applications directly on its hard drive, most software runs as fast as native on the Amiga as on a similarly equipped Macintosh. An Amiga 4000 with a 68040 processor, for example, yields performance comparable to that of a similarly equipped Macintosh with a 68040 processor.

One major goal is the fact that the A-Max requires a set of greater Macintosh ROMs in order to function. Fortunately, A-Max IV requires only the low-capacity 128K Mac Plus ROMs, and includes software in these ROMs to support basic processes, memory management and floating point math capabilities and large RAM users. A-Max IV also provides easy

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2000年10月1日

# Linux — A Free Unix for PCs

## NOTES

What would you say if I told you there was an operating system for IBM or Intel PC compatibles that will not only free, but also had following installed on thousands of machines:

- Groupware multi-sitting
- The 32 bit virtual memory addressing
- Processes protected from each other's local memory
- A graphical window environment based in the north of the hardware core contained line lines while still supporting the point to point network.
- POSIX compliance
- Network ready
- DDB emulation
- Several compilers and debuggers
- High run time mobility
- A large variety of applications to work and even more.

"No way" you say? Well, it's true! The operating system is called "Linux" and it is real and available now. In this introduction, I'll describe what Linux is, why you might want it, how you can get it, where you can get documentation for it, the kind of hardware it requires, and my impressions on installing and using it.

[illegible]

Linux is a truly free-market clone of the Unix operating system. Until recently if one wanted to run Linux at home on a PC, there were few alternatives and most were relatively expensive. When "Mandriva" came along, a truly free spreading system which runs on IBM or Compaq machines. However, Linux is somewhat limited in what it can do because it does not take advantage of the features in the IBM and Compaq chips.

This led a group of internet-connected individuals to start discussing ways of making Minko more powerful. From Linus Torvalds at the University of Finland, the book got the challenge of putting together such a Minko-based Linux kernel. In December of 1999, version 0.02 of the kernel code was uploaded upon the Usenet community, and thousands of Unix programmers and others around the world began to cooperate in putting together a new Linux clone.

It was not to be another development effort, without much external control and without most of the developers even being hired by our company. However, very quickly the system began to mature and today we are at version 2.12 (patch level 14) and, very close to being at the national 700K point.

The name "Linux" is born with open source as a cross between the original author's name and the operating system it shares. There are more than many free applications available on the operating system, and some commercial applications have started to appear.

There are at least four very different **REVIEW** cases discussed previously:

Linux, and at least one Linux-powered PC is available. A support group, "Linux International," has formed to provide commercial cables support to Linux users who want to pay for it. In short, the operating system has matured to a point where thousands of people all around the world are relying on it for hobby, educational and business applications.

Linux itself is only an operating system kernel. To be a usable system a large number of supporting system software utilities (like compilers, shells, loaders and loaders) must be installed. Optionally a windowing system is needed. To simplify the task of putting together complete Linux systems, several groups have assembled "distros" or Linux, which include everything that is needed to easily install, configure and use the operating system.

There are several distributions around. The "Soft Landing System" (SLS) operates from four Vintex HC units in the most popular but it has lost that title now to the so-called "Sharkey's" distribution which I believe originates in Europe. There are some other distributions in the works which promise to be even more complete and easy to install than these.

The Linux software has been placed under the GPL General Public License, which basically means that anyone can freely copy, change and distribute it as long as no restrictions are placed on further copying, changing, and distribution. All software on the distributions mentioned above is provided under the same set of conditions.

**Table 1**

the why would you want to have Linux running on your system? (like a large number of Linux users). It is all about freedom. By having Linux on your home machine, you have a convenient, inexpensive, and non-threatening way to experiment with learning all about networking and administering Unix systems. Linux provides a platform for almost any level of Unix user to grow in their confidence with it. The Linux user group website

Engineers who use Visual at work will find it nice to have the same environment at home, and they may be able to develop software with it while they quit use for their work. I have used my Linux system at home to develop software which ultimately runs on two workstations.

A coalition of businesses are now using Linux to their desktop operating system. They claim that it is a very cost effective way of putting a powerful operating system on their desktops and save a dime, and that the support they get via the Internet is at least as good as the support they had from commercial PC manufacturers.

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## OPERATING SYSTEMS

# Microsoft's Chicago: Convergent Evolution

BY JAMES MACFARLANE

The successor to Windows 3.1, code named "Chicago," is due out later this year. It promises to bring many new features, including full 32-bit capabilities, pre-emptive multitasking, "plug and play" technology and an improved user interface. But it's too early to know whether the public will embrace it, considering Windows NT was a sleeper.



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### Why Chicago?

Windows NT is targeted for high-end PCs, servers and embedded uses and was never intended to be a mass-marketed product for the average person. Windows 3.1 was far cheaper, but it lacked the power and flexibility that other people were demanding at server applications.

Chicago is intended to fill the gap, providing people with a more feature-filled and flexible operating system. Windows, although easy to use, was sometimes difficult to set up with different peripherals and drivers because of its DOS heritage.

The idea was to make a complete operating system that allowed people to continue to use the software and, more importantly, the data they're invested in over the years, while gaining the benefits of a more powerful and advanced environment.

**Chicago is intended to fill the gap, providing people with a more feature-filled and intelligent operating system.**

### Is more DOS

Microsoft partly don't consider Windows 3.1 to be an operating system at all because it sits on top of DOS. That is, no things have with Chicago—your machine will boot up into Windows directly without the aid of DOS. People who don't want to use DOS can opt a DOS window and run any DOS application.

Many DOS programs, especially games, will not run properly on a Windows 3.1 DOS window. This is mostly because these applications need to talk directly to hardware registers, which can conflict with the Windows environment. This is a very important factor and a challenge for Microsoft to overcome. According to the code, Chicago's DOS capabilities "are not good enough and it can run DOS." This is a fair statement, if you ask me.

When an operating system claims to be 32-bit this means not only can it execute 32-bit code but it uses the system memory in an advantageous fashion. Gates is the 32-bit 386/486 architecture that has been a headache since the days of the XT and 286 machines, as well as the rather arbitrary management of what gets up and running before booting these hardware.

### Are you running Windows software

Microsoft says Windows 3.1 software is fully compatible with Chicago and there will be no performance issues when using it. I agree if you have at least 496K RAM. Those with more memory can expect performance improvements of about 50 per cent.

What Chicago will not do is run as a 32-bit platform—it's just not designed to do that. Chicago requires a 320 or better CPU. People wanting DOS will have to use Windows NT.

### Long filenames

One of the most limitations of DOS is the 8.3 filename system. This means limits on what files can be called. With DOS you

can't call something "Chicago style" you have to call it dumb things like "blatant" or "Fins, too is gone from Chicago. You will be able to state this anything you want up to IBM's face."

To maintain compatibility with DOS applications, Chicago will actually have two filesystems per file. One will be the long filename and the other will be the old filename. This means that many file utilities for Windows 3.1 will have to be created so be able to handle this new file structure.

#### Hardware, smarter integration

It's not probably one of the "physical" issues raised around the computer world recently. The idea is to make the peripheral devices (SMB) and operating systems smart enough for you to be able to plug an existing device without having to do the through new manual and spend on how configuring the hardware and software, just to find out there's something with another device.

That means the system will be smart enough to look around your hard drive or network to find device drivers and automatically install them without your having to go through "insert disk #11 at F:" syndrome. This means buying Chicago on CD-ROM makes sense because it will have extensive driver files too.

The hardware drivers for your peripherals computer to automatically detect where it's connected to your systems like, for example, you can choose to print documents and then add it mail while you're on the road and then use it to mail it to a server that is processed when you plug into your network or docking station.

#### More CUI

The user interface of Chicago has not been finalized as of yet, but it does contain many changes from Windows 3.1. Double clicking has been eliminated wherever possible. From my own experience giving technical support, when you tell someone to click on something they always stop and say, "do you want me to click or double click." Half of the time I don't know myself because it's become so confusing.

The right mouse button has been used to trigger custom sized menus. The help engine has been completely rewritten and it now multimedia capable so you can click on items on the help file and it can even play an on-screen training video. The help engine is based on the same engine used in desktop database, Microsoft's encyclopedic CD ROM.

The Manager has also been revamped. It now provides a split window that displays the familiar tree-view directory listing as well as a desktop-style interface. You can even drop icons onto the desktop.

Although you can launch applications from the program manager (and as it is, it is), you also have a "run" bar at the bottom of the screen. When you choose that you get a pop-up menu asking whether you want to open a document, launch an application or change settings.

This new visual manager that is a huge step toward more and more like a Macintosh. Does anyone doubt?

Chicago will be available in the last half of the year and is expected to cost around \$100 as an upgrade. It will be able to be installed on your existing DOS/Windows environment. Full protection policy has not yet been established. ■

## IBM/Lotus OS/2 Agreement

**HANDOFF, ULTIMATE OS/2**—Lotus Development Corp. has announced an extension of their partnership to include the full spectrum of Lotus products for IBM's OS/2 2.1 operating system.

According to officials with Lotus at the Cebit Computer Fair held in Germany, the agreement extension follows on from the joint IFFO announcements that Big Blue was to distribute Lotus Notes and to Mail porting agent (the new extended agreement includes Lotus SmartSuite).

Joint Lotus/IBM service vice president and chief technology officer with Lotus, Clinton Bar (SmartSuite) for OS/2 has been designed to take full advantage of the 32-bit business duty such as multitasking and better savings than previous generations.

"In our view, OS/2 is an ideal platform

for future application development. The capabilities of OS/2 complement our products. As you know, Notes was first offered on the OS/2 operating system," he said.

Commenting on the agreement extension, Lotus Development's director of European sales said that OS/2 is growing in acceptance in Europe, especially in the corporate sector. There are about three million OS/2 licenses installed worldwide, primarily among large companies who rely on the powerful functionality and features of IBM's 32-bit operating system," he said.

"The extension of our co-operative agreement means that our complete family of OS/2 software is being sold and supported by IBM. Analysis on predicting rapid market growth for OS/2 over the coming years," he added. ■

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## OPERATING SYSTEM

# Apple System 7.5, Future Operating System Direction

BY LINDA ROHRBOUGH

CUPERTINO, CA (ENR) — Apple Computer is open talking about independent assistance in the future and its extended System 7 operating system is scheduled to release this year. The company is also emphasizing its desire to enter DOS and Windows ports into the Macintosh fold with a new advertising slogan, "Good-Bye and Hi to."

The strategy plan is to plan to release the new software capabilities on Macintosh Plus/PowerPC systems. The company has already disclosed that some PowerPC will have the option of running DOS and Windows applications via language translators.

This announcement of operating system direction is interesting. Apple's claim of allowing the user to become totally with the Macintosh. Apple has been talking about this concept for years and has even shown demonstrations of a computerized "agent" that would learn and take to the user offering solutions and data information. Such as removing documents or reports. While no definite date has been set, Apple says the PowerPC, plus the new system, claim to making that a reality with advanced graphics and multi-media for languages as well as improved speech recognition and text-to-speech capabilities.

In a key toward this design, Apple said it will ship a major release of the operating system, System 7.5, which will include a range of enhancements to the area of active assistance, customization, advanced graphics, networking and interoperability.

In the area of active assistance, System 7.5 will include Apple Guide, a software application that will act as a tutorial for connecting users to how to accomplish tasks. Apple claims application developers can use Apple Guide to create tutorials as well.

As for customization, System 7.5 will have the first customizable Apple Guide. Apple has been available for some time to second and customer needs on the Macintosh, but this will be the first time keeping has been available at the user or log system level, Apple representatives said.

Apple's QuickDraw GX application will be the advanced graphics built into System 7.5 and in terms of networking, Apple will add networking protocol TCP/IP. The addition of TCP/IP will make the Macintosh more interoperable with DOS and Windows-based computers. A new Open Transport architecture will be included and Apple's Mac TCP will also be a separate product to be built into System 7.5 as well.

Also, Apple's Easy Open and PC Exchange products will be included in the new operating system. These products include a translation system to enable to make it possible for the user to open up the user if the application used to create the

## 16/14/200MHz

Apple again introduced Operator, known as "component" software. See and other operating system Windows have announced a similar strategy, where users would not need to jump from one application to another to get their work done, as they do now.



For example, to create a document with graphics of the moment requires a user program to create the document, graphics software to design or modify drawings, and page layout software to arrange it all. Component software would enable users to do all the work they need to do in one place in a user could grab a drawing tool and draw, then a word processing tool and enter text and so on.

Apple announced Operator in December of last year and said it hoped third party software developers would want to build interchangeable components for Operator which users could then purchase as they need them. In this announcement, Apple said it expects to deliver Operator to software developers that year and incorporate Open into a release of its operating system software within the next two years.

Other announced enhancements for the operating system to the next two years include technology advances in the area of active assistance and system-level improvements in areas such as multitasking, memory protection and data backup/restore.

One of the more critical issues Apple said it plans to address is how these advanced features of its operating system, which will offer the user a fully integrated environment, will be a significant enhancement to users' productivity. ■

(714) 420-2000/Peter Conkard, Nancy Ward Apple Computer tel: 416 (416) 420-2000 fax: 416 (416) 420-2000

## what's new NETWORKING

To allow mobile professionals to plug their portable computers into the office network, a number of manufacturers are producing ad hoc networking that work from the Personal Computer Memory Card Industry Association (PCMCIA) slot being built into most new laptops. The **Ubiquitous Ethernet** card is made by Singapore Tech, a unit of Telexdata, Irvine, CA and such examples

The results are available in [Figure 1](#) as [Figure 2](#) numbers and

Include version 2.01 of Card and Locket services, which allows easy configuration to produce from different manufacturers.

The PCMA's Internet page ([www.pcma.org](http://www.pcma.org)) will also

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This diagram depicts **Intel's enhanced dual T1 (eDual T1) card**. The eDual T1 card contains two primary T1 links with on-board processing and integrated ROM signaling and maintenance software.

The card is part of a family of devices that support the Multi-Media Integration Protocol (MMIP). The standard was developed by Renesas. QM-based MMIP and five other manufacturers produce developers to allow multiple vendors to integrate their own technologies with a standard MMIP.

WMP will allow more rapid development of PC-based voice, video, and telecom innovation applications, according to the company.

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**Abstract** Purpose: The purpose of this study was to determine the effect of a 12-week, low-intensity, supervised walking program on the physical and psychological health of older adults with mild cognitive impairment (MCI). Design: A quasi-experimental, pretest-posttest design was used. Setting: The study was conducted in a community-based setting. Participants: The study included 20 older adults with MCI. Intervention: The intervention was a 12-week, low-intensity, supervised walking program. Measurements and Main Results: The study measured physical and psychological health outcomes. The results showed that the walking program had a positive effect on physical and psychological health. Conclusion: The study suggests that a 12-week, low-intensity, supervised walking program can improve physical and psychological health in older adults with MCI.











Adams, B. 1990. *Journal of Herpetology*, 24: 321-324.

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## Norton Desktop for Windows 3.0

**RESEARCH DESIGN AND METHODS**

[illegible]

**F**or longtime users of Norton Cleanup for Windows, this latest version of the product will be an affirmation of everything you always knew about it: It is more versatile than the Windows Programs Manager and File Manager combined, offers a more extensive array of tools and utilities, and

Finally, given a long way to reaching fullness, a steady, rather unexciting, but reliable, increase.

In Version 3.0 Symantec has worked harder than ever to make all the business most essential, most powerful and easier to use. Take the new file viewer, for example. Not only can you view a wider range of documents provided in HTML/RTF formats including Microsoft Word 4.0, but you can also copy and paste from the viewed document. This represents a major, yet quite modest, improvement over the old file viewer which only let you look at the contents of files.

Similarly, the new Smart Groups function lets you create applications groups that keep track of specific categories of files that you have created or altered. If, for example, you put all your Word (.doc) files into one group, Smart Groups will automatically keep track of all the .doc files you create and delete.

When looking at scores at a group meeting, you're now got the option of looking at them as a Toulmin or a Wiggan. (I mean, I mean, the traditional Irish view is as a detailed list of facts and opportunities development in the last view. For new users who might see the issues for an application such as John Fennell and not know what the application does the option of getting detailed text that explains an application's business aspects the first could be a big time.

[illegible]

And yes, it does work quite happily with Windows for Workgroups 3.11 even including support for network drives and providing the services of running a Network Information



program. Norton Desktop for Windows 3.0 also supports i Notes II for iMac, Rayon PDS, Microsoft LAN Manager and Lotus.

There are lots of other very useful features, including built-in virus detection and correction software, a Day Planner personal organizer, a hard disk optimizer. The compression files it compatible with Zip 2.0, a dictionary companion, and the ScriptMaker macro language and a Drawing Editor to work with it.

But Norton Desktop for Windows is not without fault. To start with, the viewer is an awful version of just one other support for the Mac: 5.0-File format - probably because the product was still in beta release when Norton Desktop for Windows shipped. A more important criticism was the lack of auto-delete functions in the One Place

Although it was nice of Symantec to build this function into Windows 95, it would have been nice if the software offered you the chance to set your modem to dial telephone numbers selected from the phone list and kept track of your state of your modem. It was also a little strange to see Symantec including a Day Planner in this product when Schedule+ had already started shipping as part of Windows for Workgroups.

At any rate, there are minor complaints about what is an otherwise excellent product that will be quite justifiably be taking its 15 million from those who say hard disk is the most reliable feature. I would urge you to give it a long, hard look. It provides today the features that other users may have to wait until 1990 for. (Continued on p. 10)

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### Special of the month

[illegible]

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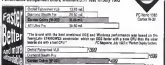
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## LOOK

# Canon's Flatbed Scanner For the Home

BY DAVID TANAKA

**Product:** Canon XL 4000 color flatbed scanner  
**Price:** Canon Canada Inc. (905) 881-1000  
 (905) 881-1077  
**Features:** Monochrome and RGB scanning Windows  
**Suggested retail price:** \$199 Plus software  
**Availability:** Authorized Canon Dealers



key settings caused me conflicts with other cards on the PC, so that just was a bummer.

The XL 4000 is a TrueScan compact flatbed scanner that Canon supplies the appropriate driver. Adopting TrueScan is a standard Windows menu via Canon's port, since TrueScan is being adopted increasingly as a standard. However, some of older software that doesn't support TrueScan will encounter difficulties with Canon's supporting-only TrueScan.

For example, two optical effects to merge color software packages, a document image management package and one photo image editing package I have no way PC would not recognize the Canon because they don't support TrueScan software. Canon does not include a driver that will allow the XL 4000 to emulate other common scanners like the HP-ScanJet, which the software packages do support.

Since an up-to-date driver needs to exist with the scanner, being able to use OCR software will be important to some potential users of the Canon scanner. A Canon representative pointed out that some versions of the OCR packages and image editing software may not include TrueScan support.

Canon says the unit's scanning speed is 30 seconds for a larger size color image and half that for a monochrome image. Using an art book cover as a sample, I timed the scan on. It took precisely 30 seconds to perform a scan using the supplied Canon software. (The actual scan took about 45 seconds.)

The suggested retail price of \$1,499 makes the Canon XL 4000 a bit pricey. However, a Canon representative told me dealers may sell for less. Also keep in mind that Canon includes a copy of UltraScan, a program that has a suggested retail price of \$59.95. ■

See Q&amp;A200-2 Review on Page 78

Canon Canada's latest scanner, the XL 4000, is aimed at the small office/home office (SOHO) and mostly event-driven (like tax filing and making cards for that matter). It is small, easy to use and easy to set up.

At the same time, it doesn't sacrifice quality or performance. The unit is capable of three scanning modes: 24-bit color and 4-bits on black monochrome. It uses a single pass scanning method and will scan at up to 600 dpi or 1,200 dpi, according to the company.

Canon says the scanner is nearly half the size of its competitors. The Canon is clearly much smaller than the HP ScanJet IIIi. For example, the Canon will measure 11 x 14 x 3 inches and will take originals up to 8.5 x 11.7 inches. (The ScanJet is approximately 14 x 23 x 6 inches and will take originals up to 8.5 x 14 inches.)

Canon says it has designed the XL-4000 to include the features of scanning programs usually needed for its scanning. That result is faster scanning. The scanner uses a Windows language, which, Canon says, makes its features easy to use.

To reinforce the focus on ease-of-use, Canon has wisely chosen to include UltraScan Version 5.0, a popular image scanning program. Reviews of UltraScan have been filled with compliments, and many have said that UltraScan is good if making color scanning path has been easy.

## Working with the Canon

The unit is equipped with a USB port and comes with an ISA bus SCSI interface card. On PC, it is designed to install the card as a new PC plug-in. In short, run the set-up software and presto in any that state in Windows 3.11/Windows. The card will be happy that you read it manually, but happily, the be-

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IBM-based photo book, called Kate's Story, building the tools of a computer-writer 12-year-old Douglas girl.

Another small business product just getting off the ground is an electronic expanded book, based on a tool to be released soon by a specialist reporter on the murder of a Washington business executive. The expanded book format permits electronic searches of key words, video and audio as well as the traditional text.

In the future, initiatives grant for leading-edge storytelling technology could allow authors with experience such as Prolog, the U.S.-based on-line service company. The company has begun talks on a grant review taking advantage of Prolog's on-line expertise and Southern's news gathering system. But multimedia is really where initiatives find

a few days.

"I hope that what we're doing in the fall is positioning Southern as the premier multimedia provider in Canada," says Macfieff. The idea for True North Journals started in the fall of 1991 and was then spun off to a wing specifically devoted to that project, creating "flat" employees to move on to testing other ventures.

True North encourages students in the target junior high school category to explore current aspects of the historical experience through video audio and text. Students explore the link experience for example can choose to listen and watch as both strategies tell the story of how and why the world is Canada. More the student to another on-screen lecture synthesizing music, video and you'll see and hear their sample book

documents.

"It's the kind of learning resource book we are looking for given the rising expense of students with computers," explains project manager, Brian Foster. And he adds "It's one of the low multimedia CD-ROMs that a Canadian produced with Canadian content."

Most multimedia material is produced in the U.S. and that's reflected in its content. Foster says the program is important as a teaching tool not because it is better than traditional texts, but because it is different and unique.

"No one is saying we'll replace text books," he says. "What True North is about is teacher classroom to learning."

The project, which is being published by McGraw-Hill Education, is scheduled for release

production fall.

Southern will not be building the information super highway like companies such as Time Warner and Rogers Cable Net, through projects such as theirs, the company hopes to find public places on the Internet, says Macfieff. And most importantly, it will be driving a Canadian-made vehicle.

"Southern is a content provider and a Canadian content provider," he says. "It's important that we have Canadian content, otherwise we're going to be seen as American content and I don't think that's a good thing." ■

And it's important in the expanded book project manager at Southern Initiative.

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## Common Networking Terms

**LAN** — Local Area Network

**LAN — Wide Area Network** — Windows NT 3.11 is the first commercial release called Remote Access Service (RAS). It allows modem users to access network features. Apple's AppleLink Remote Access (ARA) offers similar features to this remote user.

**ISDN-T** — Integrated (also "telephone") calling, specification chosen and named by the

British Telecom and Electrical Engineers (BTTE).

**Coax** (pronounced "co-ax") — coaxial cable is thicker than ISDN-T. Coax or coax Ethernet is better suited for large networks.

**NovellNet** — default network transport protocol in Windows NT. Default protocol in LAN Manager LAN Server and Windows

networking. A purely LAN-oriented protocol, NetBEUI is incompatible and can't be used to build WANs. (Microsoft LAN Manager 3.11 uses NetBEUI for this purpose) for TCPIP.

**IPX** — Novell's network transport software. Novell has an IPX router built in. Other client/server software, such as Microsoft 325, Server and Lotus Notes, also have

IPX support.

**WAN** (local area network) —

**WAN** — Novel network call-driver. Supported by Windows for Workgroups 3.11. If you combined NovellNet and Windows NT, you would typically only use only ISDN devices.

**NetWare** — Microsoft's network adapter driver allows multiple protocol stacks on one adapter. Supported by Windows for Workgroups 3.11 and 3.11.

**NetWare** — (distributed) mode for Novell protocol, a common PC network for LANs in Novell. Version 4.0 improved power of use and performance of policy services.

**SMB** (Standard Message Block) — a Microsoft protocol that enables multiple nodes to communicate with each other and with servers. SMB provides services that allow applications to connect to servers, open files, lock records, queue jobs, etc.

**TAN** — Systems Network Architecture

**APRN** — Advanced Peer-to-Peer Networking

### Other Terms

**LAN Hub** — If you use a HUBS T LAN without a hub, the entire data-carrying network goes down if one machine is disconnected. A hub solves the problem.

**ABC** — application specific integrated circuit. Used in Ethernet controllers and other computer hardware.

**ISDN** (Integrated services digital network) — full data services have available in 44 states.

**Fiber-based** — generic term for fibre-optical cabling, which allows very fast data transmission.

**SONET** (synchronous optical network) — advanced fibre optic transmission equipment used by telecom providers and other communications companies.

### Other Networking-related Terms

**ADDC** (Apple Open Collaboration Environment) — A specification created by Apple to allow a standardized method of managing and discovering services in Macintosh productivity applications.

**API** — application programming interface. A programming term that refers to only a particular set of standard routines and operating system calls when writing an application.

**CNC** — Common local Calls, established by a joint Apple/Microsoft agreement.

**MAPI** (Messaging Applications Programming Interface) — using a particular set of standard services and operating system calls when adding e-mail functionality to an application.

**PowerTalk** — Apple's personal communication software based on ADDC technology. Incorporated in System 7 Plus, the second Macintosh operating system.

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## Ethernet Environments/Networking Protocols

**AppleLink** — Macintosh standard

**BitNet** — not suitable for WATS

**IPX** — NetWare LAN

**MacFPE** — Macintosh implementation of FPE

**NetBIOS** — networking protocol that enables workstations to communicate with each other and with servers. For IBM, provides both computer-oriented services and communications services (e.g., messages). NetBIOS is not a transport protocol, but rather serves as an interface to a transport protocol such as NetBIOS User-Like-Session (NLS).

**OSI (Open Systems Interconnection)**

**NSA (Network Network Architecture)** — IBM's network standard

**TCPIP** (Transmission Control Protocol/Internet Protocol) — computer-wide (suitable) network protocol. The foundation of the Internet. TCPIP is used by products such as LAN Manager 2.0 and Windows NT as an alternative transport protocol for NetBIOS to build WATS on top of. Microsoft calls TCPIP its "routing/switching protocol," but increasingly doesn't directly use the system for its own global connections.

## Quoted

*Up until recently, information technology was pretty much the job of people on the IT — the people who know about computers and could help process transactions and furnish reports.*

*But that's changed — largely because of personal computer networks, new communications technology and new software, particularly software that's come to be known as groupware.*

*As a result, information technology is moving from the back office to the front lines. It is no longer used just to count money, but to make money. And anything that's used to make money has strategic importance. No CEO, no one in management in any organization, can afford to ignore it.*

— Jim Hensel,  
CEO of Lotus Development Corp.

## MANVY

# Network Specialists Surpass MIS Generalists

**MANHASSET, NY (NB)**—Network professionals have surpassed their generalist management information system (MIS) counterparts to become the single most influential group impacting computer-related purchasing, according to an *Intelligence* survey sponsored by Communications Week.

Exactly 44.6 percent of the 1983 professionals surveyed were labeled "Network." An "internality" is valued with networks up from 33.6 percent two years ago, the survey reported. *Intelligence* projects that 43.2 percent of the group will fall into this category two years from now.

Most of the new networking personnel will come from MIS, the researchers learned, since the surveyed companies anticipate only marginal growth in the total number of computing professionals.

At the average rate in the survey, all percent of all PCs are connected to networks. *Intelligence* forecasts that this figure will rise to 46 percent by 1985. An earlier *Intelligence* survey released in 1982 predicted that the majority of department-level networking would be available on company-wide net-

works within the next few years.

The new survey also found that more than two-thirds of respondents had either dedicated spaces or computer rooms for network facilities, or planned to name one by 1985. Comparatively few of these designated individuals yet held the title of "chief networking officer," though. Most networking specialists are still called systems analysts, programmers, or information technology specialists, the study discovered. ■

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## Telecom Means Choice

Continued from page 24

of content (read: with your modem and practically any terminal software).

What's available on Internet? Well, there's news, books, lists of magazines, books, articles, papers, electronic publications, people, music, just for fun, recipes and anything else you'd find in a typical public library. Except it's in electronic form and, once you're

online, it's all absolutely free. Here's a few fun examples: I can access online libraries, a movie database, the dead sea scrolls, a collection of music by Oscar Levant and the online version of the Internet Underground Music Archive that I wrote about a few months back, and state colour transfer maps and high-resolution pictures of the moon from the CosmoLine website. There are even video cameras that are just sitting in someone's lab or kitchen waiting for you to

log on and see what's in the room. This is fun stuff. Go on to yourself!

Now, importantly, there are online tools either for people like me here to use all thing "Nifty Internet Things" that everyone keeps writing about but fail to tell you about in enough detail for you to be able to figure them out for yourself.

If the 486 or online world offers any serious Internet, some know that just newsgroups and mail, and then about Usenet, it's

easy to use and probably the best place to start.

Questions of the month: If someone's libraries will be terrific, why buy a file public library system using the technology and providing public Internet access now? Why not, if you're starting the public on how to access online public access?

Consider the facts, it's in the public interest to have a library system, thus the reason for public libraries in cities in the first place. Libraries are information storage and retrieval experts who act as agents to send out the public with everything information needs in the public library system. The idea is to let the most public information resources over to retail.

Put two and two together folks, go to your town or city council and demand that your local library get into the Internet chain up. After all, isn't that what libraries are all about?

### Goodbye, Telex

The only program I jump to DOS to use is Telex. It's the best DOS shareware terminal program there is. I've even been happy with Windows terminal programs. I could have to fool a class of them. They're all been either lacking in features or awkward to use. It looks like the guys at Telex have been doing their homework, though because I've used their WinComm Pro and I'm hooked.

Using WinComm Pro is one of those "Gee, that makes sense" experiences. The phonebook is an old-fashioned one. You double-click to log on, maybe. If you press the "record" button before you log on, the program will make an automatic logscript for you, but that automatically run every time (you hit the button if you need it).

The logscript is generated as C code so you can edit and write your own scripts if you want to do anything really fancy. You can also define macros and put them on the toolbar.

For uploading, you can drag and drop files from the directory or file manager within WinComm. It's maintained an old WinComm's own file selector. I like it like the program's file selector much because you have to hit **Alt+F9** instead of just using a list of files in your default upload directory.

Because we need to interact with data not just read it, WinComm offers many ways to capture, cut and paste bits of text. You have a word-based buffer that allows you to cut and paste information to the host system (ASCII upload) to a file, the printer or screenshot. This allows you to make clipping files and to put out some nice text into other messages. Very handy.

What I also like about the capture facility is that you can have the program automatically open and name capture files. You can have it number the files sequentially, by date, or append to the previous file or to concatenate the previous file.

Aside from the file upload, another the only thing I don't like about WinComm is that many components have to be loaded from disk. If you're operating on a low-end, optimal computer system, like my poor 386 with a doubled 80486 drive and 64MB RAM, this means waiting around for scripts to start running and for file upload dialog boxes to appear. Contact Telex for a patch! 10/4. ■

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# what's new

## Make Your Fax Machine a Scanner



Using a stand alone fax machine as a communications machine is nothing new, but it used to be only you could get it to work if you had two phone lines, one for the outgoing fax call and another feeding into your computer as a modem. *Protonal Protect* now offers a more direct solution that does away with the second phone line. Their new *ProScan* product turns any standard Group 1 fax machine into a computer scanner and printer. This small, battery powered device fits into your fax machine and fax machine into thinking that they are just marketing over the phone line. Simply connect all three devices together and the software that comes with *ProScan* will see you are set to scan and to print.

*ProScan* allows users to scan full page sized text and graphics and save either 14 levels of gray scale. It is compatible with any major desktop publishing software package and transferable to 300.

Contact: *Protonal Products* 1-800-567-4466

## Sightings Steven M. Johnson



Owners are enjoying other stress-free ways to build up a portfolio with others or themselves. *Officer* can be used to manage a "portfolio" or other asset in any way you want to. *Officer* can be used to manage a portfolio or other asset in any way you want to.

## NEC Launches DX4-Powered Notebooks

NEC Technologies have added to their line of Vista 2 notebooks with a new model with Intel's latest DX4 processor. Announced in conjunction with Intel's official release of the DX4 computer chip, these new series of computer chips helps to provide the best IBM performance in a notebook computer. Using Intel's 54, 64, 80, and 100 MHz processors, the new Vista 2 notebooks can operate while using only 1.5 volts, maintain the high performance level demanded of the level of today's notebook computers while keeping power consumption low. NEC's Vista 2 15000 15.4" notebook comes with a 16MB hard disk drive and an 800MHz color LCD screen. The suggested retail price is \$2,299.

Contact: *NEC Technologies Canada Inc.* 905-305-3000

## Internet Business Conference

*RealMarket* Inc. has announced a conference on business applications for the Internet, featuring several influential Internet figures. Some speakers include Jon Cappel, co-founder of the Canadian Internet Handbook, Dr. Bill, author of the *White Paper* series, Guide and Caring, and Michael Hargrave, publisher of the *Internet Business Journal*. The conference will focus on topics such as "The Internet in the Canadian Environment," "Business and the Internet," and "The Internet in the Canadian Market." The conference will be held on October 10, 11, and 12, 1994, at the Sheraton Hotel in Toronto. The conference is open to all and is free of charge.

The conference is being held at the Sheraton Hotel in Toronto. The conference is open to all and is free of charge. The conference is being held at the Sheraton Hotel in Toronto.

Contact: *RealMarket Inc.* 416-593-8888 or [realmarket@realmarket.com](mailto:realmarket@realmarket.com)

## Oak Street Software Marketing Service

Are you a programmer with a good idea, but not sure how to produce a final marketable product? *Oak Street Software* is offering their marketing services under the name *Oak Street Software*. *Oak Street Software* is an agent in helping programmers who need help getting their product launched.

*Oak Street* provides a full range of services, including writing facilities, guidance in writing user documentation, and consulting to reduce the marketability of the software to the target market. They also provide a service for data collection, evaluation, and analysis, making services and all of the other software and computer-related work required. Any programmer who needs help to develop a product with potential will welcome to approach *Oak Street* for their services.

Contact: *Oak Street Software* 905-884-6660

## OCR improvements from Caere

Caere Corp., San Carlos, Ca. has introduced two optional optical character recognition (OCR) packages for Windows. *CaerePage Professional Edition* and *CaerePage Direct* 2.0.

*CaerePage* Direct 2.0 offers complete accuracy with its advanced 3D OCR technology and complete document processing through the use of TrueType technology. The company claims that *CaerePage* offers a more complete and accurate representation of the original.

Caere says *CaerePage* Direct 2.0 employs the company's latest recognition engine for highly accurate results. Implementing its proprietary Composed Street Name & system, the

*CaerePage* Analyze and *CaerePage* 2.0 technology, which deliver greater accuracy for fax images, documents with unusual text and otherwise degraded documents.

*CaerePage* Direct 2.0 will also support the new HP ArrayJet 3.0 technology for greater accuracy on degraded or otherwise damaged documents.

*CaerePage* Direct 2.0 has a suggested retail price of \$299.95, a reduction of more than 50 percent from the previous \$599.95.

*CaerePage* Professional 2.0 has a suggested retail price of \$499.95.

Contact: *Caere Corp.* 408-855-9000

## Logitech Gives Away "Sound Advice"

Logitech, best known for its line of computer peripherals, is giving away five copies of their "Sound Advice" CD to educate the public about the value of computer sound cards. The CD is being given away free as a promotion for Logitech's new *SoundMax* Wave sound board, released recently.

The *SoundMax* Wave CD can be played on any CD player and features a discussion between two personality, Les Logitech, Logitech representative (Les Logitech), and award-winning professional musician, Wajid Ghafari. The discussion aims to clarify the terminology of sound boards, looks at MIDI, common industry sound standards and the difference between digital and analogue sound. The CD also features several compositions by Mr. Ghafari featuring Logitech's *SoundMax* Wave board.

The CD is being offered only as long as supplies last. Each CD comes with a \$4.95 off coupon towards the purchase of any Logitech product. People can see the full scope of the *SoundMax* Wave CD by calling Logitech at 1-800-595-0262.

Contact: *Logitech Inc.* 1-800-595-0262

## Microsoft Canada Announces FoxPro 2.6, Access 2.0

Microsoft Canada announced the Microsoft *FoxPro* relational database management system version 2.6 for the Windows and MS-DOS operating systems and *Access* 2.0 for Windows.

Both the *Windows* and *MS-DOS* versions of *FoxPro* now offer new features such as the *Indexing Manager*, a newly graphical interface for managing tables, queries, views, reports and other database features.

*FoxPro* technology which automates all queries (SQL) components and converts them to *Transact-SQL* language, user reports that simplify common data tasks, and more than 30 new *Access* language extensions that allow users to run most *Access* programs unchanged. Also available are the *Access* version 2.0 Professional editions for Windows and MS-DOS, offering a variety of development tools as well as the standard desktop management system.

*Access* users in making *Access* version 2.0 Standard editions for Windows and MS-DOS available at a special promotional price of \$49.95 each through June 30, 1994. A money-back guarantee allows users who aren't completely satisfied to return the product within 90 days and receive a full refund.

Microsoft claims *Access* 2.0 is the first desktop database to bridge the gap between end user and developer needs, providing a single solution for all levels of users in an organization.

The company says it has included more than 300 new and updated features in *Microsoft Access* 2.0.

Contact: *Microsoft Canada* 905-884-0600

## Awards Fever Hits Software Industry

In San Francisco in mid March the Software Publishers Association (SPA) handed out Code Awards to 25 companies for the best consumer, education, and business software of 1993. The SPA calls its "Code" Award the "Software Award of the Year" for the software industry.

Microsoft's *Excel* 4.0 by Clark Corp. won the *Code* Award for Best Business Software Program. *Microsoft's* *Access* 2.0 by Microsoft Software, Inc. won the *Code* Award for Best Consumer Software Program. *Microsoft's* *Word* 6.0 by Microsoft Software, Inc. won the *Code* Award for Best Education Software Program.

## what's new

Two programs were winners in multiple categories: *Mynt* by Bradenhead Software, Inc. (Best Fantasy Role Playing/Adventure Program) and *Best User Interface on a New Program*, and *Quicken 3.0 for Windows* by Intuit (Best Corporate Program and Best Personal Finances Program).

[illegible]

The Software Publishers Association is the principal trade association of the PC software industry. The SPA estimates more than 5,000 computers are shipped including business computers and educational software firms. The SPA has offices in Washington DC and New York.

**STF Technologies**  
shipping AutoPak

SmartID is IDP Technologies' latest tool, made for the Internet. It comprises four add-in modules for the company's FastID ID software. ID AutoOCR is optical character recognition technology that the company has licensed from Calera Recognition Systems.

FTP Assistant allows a user to post, leave or they are removed or to schedule posting at a later date.

Background Imaging is a commercial unit  
the first operator. Check the unit first by the  
unit.

The STN Developer Kit for SoC/STN 3.0 allows developers to test-enable their programs. STN is located in Ramona City, MO.

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## TSE Automation Delayed Again

[illegible]

**BOATBULL (MI)** — The Tennessee-Tombigbee Exchange has further delayed the start stop forward closing its trading floor and moving volume to subordinated trading in futures.

The exchange announced that a pilot project that was to start in April will now be put back to June, due to the discovery of those problems. It has expected and to a flood that damaged equipment in the exchange's computer room.

A memo to members lists the exchange from Fred Brothman, chairman of the board, also said that because of record trading volumes the exchange would have to install a guarantee to provide electrical backup a project that will take two weeks, away from trading of the new electronic trading system.

The pilot testing phase, in which some readers will conduct the study on the new

electronics systems, had been due to begin in January, but a delay in April was announced at the beginning of the year.

It is the intent in a series of delays for a convention that was announced in February, 1982, and was originally supposed to have been complete last spring. Closure of the 114-year-old T&E meeting Room, originally scheduled for March, 1983 was delayed at the beginning of 1983 it was then supposed to happen in the fall, but has since slipped back again.

Jim Gallagher, executive vice-president of the exchange, told *Newspapers in June* that the floor was expected to close before the end of this year, but would not give a more specific date. He said the exchange will probably announce a new target date for closing the floor a month or two after breaking the other two. ■

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[illegible]

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## Running with Ofoto 2

When the Canon camera and Nikon film were entered the contest, it happened to be the playing with a format that included several historical photographs, the quality of which varied considerably. Among them were a badly faded snapshot taken in 1910, a very dark 8 x 10 glass and a photo of a painting that wasn't properly aligned because the photographer hadn't held the camera level when he took the picture. Others were of pretty good quality, but all had to be scanned in consistent to be

To make a long, long story short, Chao (named what could have been any thing) totally convinced his wife that he was really honest (see *Open 14*). He created a custom collarbone (see *Open 14*) and a minute procedure that is very well explained in the manual. I scanned the photos sent to me in the correct direction and saved them as TIFs. I generated the very high dpi to wait two clicks and manually converted the picture of the painting into CMYK. I scanned it, placed the TIFs into Photoshop, and ordered the fit to be larger than original (bigger). The picture actually consisted of two new elements: the stamp, the visibility of someone, though he is not visible from computer. I am not a scientist, however, I

Developed by High Speed Computers, Inc. of Los Angeles, CA, Office simplifies color and monochrome scanning to a point where anyone can produce a good quality scan. One of the keys to Office's success lies in its calibration system, which allows you to calibrate your system to take into account the characteristics of a specific output device.

The program also includes a number of automatic and manual image controls — red or cyan tinting, dynamic range for shadows and highlights, noise elimination, face previously scanned images, image magnifying and automatic image center.

Office has been the darling of the Macintosh graphical community and finally this past April Source introduced Office version 2 for Windows. It has a suggested retail price of \$199.995 (USA\$299.99 for the big-dummy version).

**Document Control Number:** 000-000-0000

[illegible]



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# newsbytes

EXCLUSIVE NEWS

**Builder:** Columbia came up with Windows, and is already using it with its own systems and customers such as Oppenheimer Financial Systems.

But the enhancements will greatly speed up the pace with which Windows is implemented. Microsoft alone will fill 60 percent of the world's desktop chip sets and will implement it on a variety of hardware platforms, which also reduced the technology for other users in their desktop chip sets. Other and Microsoft, both leaders in power processing applications, will also implement technology.

Contact: Peter Systems, 300-400-1000

## Zenith Wins HDTV Endorsement

**WASHINGTON, D.C.** — Zenith Electronics Corp. a national television technology for high definition television has won the endorsement of the internationally known Digital HDTV Group Alliance in the HDTV market for terrestrial broadcast and cable.

The HDTV standard is expected to play a major role in the development of the "real time" in the future. In the future, because it can serve as an engine to drive development of systems with high resolution displays and can offer a low cost low into the future for television, education and entertainment services.

Zenith was one of the companies that provided the technology and the technology to the Zenith Electronics Corp. The alliance will use the Zenith technology to develop better coverage area, including television with existing TV signals, and a robust digital signal.

## More Reader Rabbit Titles

**REIMONT, CA.** — Educational software producer The Learning Company has announced two more of its award winning Reader Rabbit titles are available for Microsoft Windows "Reader Rabbit 1" and "Math Rabbit for Windows" now feature both graphics, digitized sound, and more accurate timing in children ages three to five, says the company.

The line is responding to the demand for Windows software from its customers. According to the Software Publishers Association (SPA) Customer Survey, half of all total computer sales in 1993 were for Microsoft Windows.

Reader Rabbit 1 is aimed at ages three through six, the children playing with the Reader Rabbit character, reading, drawing and watching made at the World Famous Wood Team game. It has children already won the title by just one letter and then lost them to the main based on Windows. The product features animated 2D-style graphics and sound.

"Math Rabbit for Windows," aimed at children ages four through seven, is set in the Ocean of Numbers. Children interacted themselves at the shore between the planet to enter one of the four objectives — the Cat Pope Learning Game, the Lightning Star, the Sea Lion Show, or the Kalliope Matching Game — for practice in counting, addition, subtraction, multiplication, and pattern recognition skills.

Contact: The Learning Company, 400-400-1000

## Photoshop 2.5 Ships For Sun, SGI

**MOUNTAIN VIEW, CA.** — Adobe's new Photoshop 2.5 version is now shipping in two versions for Sun Microsystems and SGI on graphics workstations. The image processing software began shipping in the current version for the Macintosh and Microsoft Windows in 1993.

The company claims that Photoshop 2.5 versions for the Sun Workstations and SGI platforms can create more compatible files that can be shared from one platform to another via desktop or network. It includes the Sun and SGI versions of the same features as the Windows and Macintosh versions.

Pricing for Photoshop on the Sun or SGI platforms is single right license at \$349, five right license at \$2,395, and 10 right license at \$4,295.

Contact: Adobe Systems, Adobe 800-833-FOUNTAIN

## Merger Fever Hits Software Industry

Not only the fact of the merger of Adobe and Aldus has been announced, but also the fact that the two companies have announced merger plans to two separate days.

### Novell, WordPerfect Merge

Novell and WordPerfect announced their merger plans March 20. The deal will result in a combined Canadian operation that will generate \$100 million in sales this year, according to the companies.

Under the terms of the merger, WordPerfect will become a subsidiary of Novell.

Novell also announced it was buying Novell's Quantum File Management Software for \$100 million.

### Symantec Buys Central Point

Symantec is buying at this company since it was public five years ago. This time the company is computer Central Point Software, a \$100 million company.

Central Point and Symantec are now known in the software industry for their utility software packages aimed at users of IBM compatible and Apple Macintosh computers.

One of Central Point's most popular products at the PC, Tru-Tek, is called for the management and system backup. Central Point also has a strong software and utility software line.











## bookreview

# The Virtual Community: Homesteading on the Electronic Frontier

REVIEWED BY KEITH SCHINCIGLI ROBERTS



**Title** the virtual community: homesteading on the electronic frontier  
**Author** Howard Rheingold  
**Publisher** William Morris  
**Price** \$29.95  
 160 pages 1993 pages 1993

The Virtual Community: Homesteading on the Electronic Frontier is a landmark book covering the development of networks on-line services and in particular virtual the world. Written by a man who has long lived on the edge of the money on-line systems available in the world today and of their creation this book provides a much needed analysis of how people are interacting and using the virtual communities that have been created using computers and telecommunication technologies.

**The strength of any on-line community does not lie with how people interact with their computers, but how people interact with other people through their computers.**

Rheingold provides a good history of the Internet, the Electronic Frontier Foundation, and many other virtual communities and institutions around the globe. He also has taken pains regarding the future of the electronic global village.

The next major point Rheingold keeps making throughout the book is that the strength of any on-line community does not lie with how people interact with their computers, but how people interact with other people through their computers. Some of the examples he uses are examples of how the use of France's Minitel service influenced tremendously after the ability to meet other people on-line was realized, and how the Internet Mail User (Internet Mail) only on the creativity of the people using them, how

what ideas are supported, people try to find ways around any restrictions, such as when the technology can be used to support the exchange of ideas (including criticism of

how it is applied in various) and even find ways to get around the restrictions placed on them.

It becomes increasingly obvious as you

read through the book that virtual communities share many characteristics in common. Without face-to-face contact, social

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## SMITHBOOKS

honesty (all say yes), and people tend to expect themselves more credit. You see the positive results of this in the consistency of MBEs, and the negative aspects in "Bame wars", where users tend to insult at each other. The character of us late communities is that created exclusively by the types of services they offer, but by the ways people use them to become rich, healthy.

Probably the best section in the book is where Thompson looks at the implications of online services for democratic institutions and the privacy issue. He argues effectively against the view of techno-optimists who believe that the very nature of electronic communications will promote greater personal freedoms and democracy. He looks at the economic incentives and regulations that

that motivated such change in the influence of corporate interests, a conclusion not shared by all scholars.

This has led naturally to the birth of the Electronic Frontier Foundation, and ended up solving inescapable legal problems for the virtual community as a whole in the future, but things could have turned out very differently if it weren't for the perseverance of a few dedicated people. Privacy issues were raised when it was revealed that subscribers to *Strategic Audio* program, in their communications with me that allowed Prolog to read the contents of the e-mail list.

Blanchard argues that there will be a constant struggle between people who will try to gain more power through using computers and those who, not wanting to reveal

The idea has made its way to the popular press that computers and communications are inevitable tools for democratic change.

[illegible]

Polish asked what single factor helped Lech Wałesa of Poland to overturn the old communist regime. He pointed to a fax machine. Since then, the fax has made its way to the people's parliaments, companies, and government offices as the visible token for democratic change. For every Poland that has still used these technologies, there are countries that place heavy restrictions on them, which causes them to be used in secret.

Her technology is essential to all but a small group of people.

The review found *The Visual Canon* may be a very interesting book to read. It is filled with useful information on the film canon currently, but it does should have taken a much firmer hand with Borge's writing style, which tends to wander all over the place. In many ways, this would have made a much better electronic hypertext document than a published book, as Borge could come from time to time.

Stronghold's book has changed the beginnings of the virtual community: how it develops depends on our understanding of how this technology helps people interact with each other. The Virtual Community poses a long way to helping us understand how we currently use this technology, and provides us with some great ideas on what to expect in the new future.

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# training

## Learning To Be A Teacher

BY CUB LEE

*All of us who have been around computers for more than a year are eventually going to be called in as "consulting physician" when one of our friends or relatives buys their first computer. This is the best place to start to relearn good habits we've forgotten over the years and to give a new user the kind of instruction we wish we could have had.*

Here are some guidelines for de-constructing the learning process and making the computing experience less like having a new problem and more like solving a new one:

**1.** Never allow someone to be dependent upon software they don't own. If you're installing an unregistered copying system that's almost guaranteed you deserve every possible phone call you get when the system has problems — and eventually every system has problems.

**2.** Force every new user to learn the two-fold backup habit: saving it in two years or installing an unregistered copying system that's almost guaranteed you deserve every possible phone call you get when the system has problems — and eventually every system has problems.

with the hard disk, and remember that even the new Macintosh backup is far too cryptic for novices. Stick with simple file backups which a new user can restore from a backup file — and use the backup date to track the status of file and directory names. New computer users will eventually learn to know.

**3.** Keep the best-kept single and avoid a third party software. The average user needs only about a half dozen standard device drivers and USB to keep the system running smoothly. New users will willingly sacrifice speed and a bit of security for one shiny and reliable.

**4.** You want to be the only person to access the system is an absolute. To avoid copyright program, scripts and some plain, common

which when they first begin to change. Tell DOS users about disk with simple batch scripts. Windows, OS/2 and Mac users don't need third-party tools made until they gain experience.

Any special software you add to the system should be contained in the ALPHABETICALLY, COMING OUT OF A SWEEP, READ THE manual to the most directory. Make changes to the user's knowledge to problems only you can solve.

**5.** Give your change made to grow by carefully maintaining intended system files and standard software. If there's a plenty of room on the hard disk, compare files. Security or a file deletion system is perfect against available file loss.

Control your drive usually into Windows properly. It's not uncommon to accumulate 100MB of TMB files every month, adding 100MB of TMB files to a 100MB hard disk will eliminate the drive's performance.

**6.** Start by teaching what the user wants to know, not what you think they need to know. Avoid unnecessary changes until they can run and install new programs. The first lesson must have used most of the existing programs: printing and making text files, installing the user's personal computer software.

**7.** Understand the system. I often make a user's copy of a program with more different names so the user will be sure to

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